

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for investigating the presence of Anthrax (*Bacillus anthracis*) on a substrate, comprising:
 - a) selecting a first area from the surface of the substrate, the first area sufficiently large to contain a small plurality of Anthrax organisms, then
 - b) selecting a wide field of view within the first area for further investigation, then
 - c) irradiating the wide field of view plus an area surrounding the wide field of view with sufficient energy to photobleach the irradiated area, then
 - d) collecting Raman shifted light from the wide field of view, then
 - e) analyzing the Raman shifted light for patterns characteristic of Anthrax microorganisms.
2. (Original) The method of claim 1, further comprising repeating steps a) to e) for a second area.
3. (Currently Amended) The method of claim 1, where the step of analyzing includes analyzing the strain of the Anthrax microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

4. (Currently Amended) The method of claim 1, where the step of analyzing includes analyzing the viability of the Anthrax microorganisms.

5. (Currently Amended) The method of claim 1, where the step of analyzing includes analyzing the growth medium in which the Anthrax microorganisms has been grown.

6. (Currently Amended) A method for investigating the presence of pathogenic microorganisms on a substrate, comprising:

a) selecting a first area from the surface of the substrate, the first area sufficiently large to contain a small plurality of pathogenic microorganisms, then

b) selecting a wide field of view within the first area for further investigation, then

c) irradiating the wide ~~field~~ field of view plus an area surrounding the wide field of view with sufficient energy to photobleach the irradiated area, then

d) collecting Raman shifted light from the wide field of view, then

e) analyzing the Raman shifted light for patterns characteristic of pathogenic microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

7. (Original) The method of claim 6, further comprising repeating steps a) to e) for a second area.

8. – 9. (Cancelled)

10. (Currently Amended) The method of claim 6, where the step of analyzing includes analyzing the growth medium in which the pathogenic microorganisms has been grown.

11. (Original) The method of claim 6, where the Raman shifted light from the wide field passes thru a spot, line or image focusing type of spectrometer.

12. (Original) The method of claim 6, where the pathogenic microorganisms are anthrax spores.

13. (Original) The method of claim 6, where the pathogenic microorganisms are protozoa.

14. (Original) The method of claim 6, where the pathogenic microorganisms are cryptosporidia microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

15. (Original) The method of claim 6, where the pathogenic microorganisms are *Escherichia coli* microorganisms.

16. (Original) The method of claim 6, where the pathogenic microorganisms are *Escherichia coli* 157 microorganisms.

17. (Original) The method of claim 6, where the pathogenic microorganisms are Plague (*Yersinia pestis*) microorganisms.

18. (Original) The method of claim 6, where the pathogenic microorganisms are Smallpox (*variola major*) microorganisms.

19. (Original) The method of claim 6, where the pathogenic microorganisms are Tularemia (*Francisella tularensis*) microorganisms.

20. (Original) The method of claim 6, where the pathogenic microorganisms are Brucellosis (*Brucella* species) microorganisms.

21. (Original) The method of claim 6, where the pathogenic microorganisms are *Clostridium perfringens* microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

22. (Original) The method of claim 6, where the pathogenic microorganisms are Salmonella microorganisms.

23. (Original) The method of claim 6, where the pathogenic microorganisms are Shigella microorganisms.

24. (Original) The method of claim 6, where the pathogenic microorganisms are Glanders (Burkholderia mallei) microorganisms.

25. (Original) The method of claim 6, where the pathogenic microorganisms are Melioidosis (Burkholderia pseudomallei) microorganisms.

26. (Original) The method of claim 6, where the pathogenic microorganisms are Psittacosis Chlamydia psittci) microorganisms.

27. (Original) The method of claim 6, where the pathogenic microorganisms are Q fever Coxiella burnetii) microorganisms.

28. (Original) The method of claim 6, where the pathogenic microorganisms are Typhus fever (Rickettsia prowazekii) microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

29. (Original) The method of claim 6, where the pathogenic microorganisms are *Vibrio cholerae* microorganisms.

30. (Original) The method of claim 6, where the pathogenic microorganisms are chosen from the group of filoviruses (such as Ebola and Marburg viruses), naviruses (such as Lassa fever and Machupo viruses) and alphaviruses (such as Venezuelan equine encephalitis, eastern equine encephalitis, and western equine encephalitis).

31. (Original) The method of claim 6, where the pathogenic microorganisms are *Giardia* microorganisms.

32. (Original) The method of claim 6, where the pathogenic microorganisms are *Candida albicans* microorganisms.

33. (Original) The method of claim 6, where the pathogenic microorganisms are *Enterococcus faecalis* microorganisms.

34. (Original) The method of claim 6, where the pathogenic microorganisms are *Staphylococcus epidermidis* microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

35. (Original) The method of claim 6, where the pathogenic microorganisms are *Staphylococcus aureus* microorganisms.

36. (Original) The method of claim 6, where the pathogenic microorganisms are *Enterobacter aerogenes* microorganisms.

37. (Original) The method of claim 6, where the pathogenic microorganisms are *Corynebacterium diphtheriae* microorganisms.

38. (Original) The method of claim 6, where the pathogenic microorganisms are *Pseudomonas aeruginosa* microorganisms.

39. (Original) The method of claim 6, where the pathogenic microorganisms are *Acinetobacter calcoaceticus* microorganisms.

40. (Original) The method of claim 6, where the pathogenic microorganisms are *Klebsiella pneumoniae* microorganisms.

41. (Original) The method of claim 6, where the pathogenic microorganisms are *Serratia marcescens* microorganisms.

Appl. No. 10/608,470
Docket No. E2079-00032
Reply to Office Action of March 10, 2005

42. (Original) The method of claim 6, where the irradiating light is in the ultraviolet spectral region with wavelength less than 410 nm.

43. (Original) The method of claim 6, where the irradiating light is in the visible spectral region with wavelength less than 780 nm and greater than 410 nm.

44. (Original) The method of claim 6, where the irradiating light is in the near infrared spectral region with wavelength less than 2500 nm and greater than 780 nm.

45. (Original) The method of claim 6, where the step of analyzing includes analyzing the strain of the pathogenic microorganisms.

46. (Original) The method of claim 6, where the step of analyzing includes analyzing the viability of the pathogenic microorganisms.

47. (Original) The method of claim 6, where miniaturized components are used to enable a handheld detector.